

IN THE CLAIMS:

Please amend claim 13 as follows:

*Cancel claims 1-12*

13. (Currently Amended) An injection apparatus, comprising:

a first fluid source;

a second fluid source; and

a fluid path disposed between the first and second fluid sources and a patient, the fluid path comprising[[:]

a mixing device in fluid communication with the first and second fluid sources,

wherein the fluid path comprises a reusable portion and a disposable portion.

14. (Original) The apparatus of claim 13, wherein the fluid path further comprises at least one metering device disposed between the first and second fluid sources and the mixing device.

15. (Original) The apparatus of claim 14, further comprising a control device in communication with the metering device.

16. (Original) The apparatus of claim 13, wherein the fluid path further comprises a fluid assurance device disposed between the mixing device and the patient.

17. (Original) The apparatus of claim 13, wherein the first fluid source comprises a contrast source.

18. (Original) The apparatus of claim 13, wherein the second fluid source comprises a diluent source.

19. (Canceled)

(Please add the following new claims 20-62: )

20. (New) An injection apparatus, comprising:

a fluid path connected to a patient, the fluid path comprising a reusable portion and a disposable portion;

a first fluid source connected to the fluid path upstream of the patient and operable to provide a first fluid to the fluid path;

a second fluid source connected to the fluid path upstream of the patient and operable to provide a second fluid to the fluid path;

a first fluid conveyor associated with the fluid path downstream of the first fluid source;

a second fluid conveyor associated with the fluid path downstream of the second fluid source;

a fluid assurance device associated with the fluid path downstream of the first and second fluid conveyors; and

a connector associated with the fluid path downstream of the fluid assurance device.

21. (New) The injection apparatus of claim 20, wherein the fluid path upstream of the connector is reusable.

22. (New) The injection apparatus of claim 20, wherein the first fluid source comprises a contrast medium source.
23. (New) The injection apparatus of claim 20, wherein the second fluid source comprises a diluent source.
24. (New) The injection apparatus of claim 20, wherein the first fluid conveyor at least meters the first fluid conveyed thereby.
25. (New) The injection apparatus of claim 20, wherein the first fluid conveyor is a metering pump.
26. (New) The injection apparatus of claim 25, wherein the metering pump is a peristaltic pump.
27. (New) The injection apparatus of claim 25, wherein the metering pump is constructed and arranged so as to minimize pulsatile flow characteristics.
28. (New) The injection apparatus of claim 20, wherein the second fluid conveyor at least meters the second fluid conveyed thereby.
29. (New) The injection apparatus of claim 20, wherein the second fluid conveyor is a metering pump.

30. (New) The injection apparatus of claim 29, wherein the metering pump is a peristaltic pump.

31. (New) The injection apparatus of claim 29, wherein the metering pump is constructed and arranged so as to minimize pulsatile flow characteristics.

32. (New) The injection apparatus of claim 20, further comprising a fluid combining device disposed in the fluid path downstream of the first and second fluid sources.

33. (New) The injection apparatus of claim 32, wherein the fluid combining device comprises a static mixer.

34. (New) The injection apparatus of claim 20, wherein the fluid assurance device minimizes the chance that air may be injected into the patient.

35. (New) The injection apparatus of claim 34, wherein the fluid assurance device detects at least one of a presence or an absence of air in a fluid.

36. (New) The injection apparatus of claim 34, wherein the fluid assurance device detects air bubbles in a fluid.

37. (New) The injection apparatus of claim 34, wherein the fluid assurance device is an ultrasonic detector.

38. (New) The injection apparatus of claim 20, further comprising a back flow prevention device disposed in the fluid path.

39. (New) The injection apparatus of claim 38, wherein the back flow prevention device is a peristaltic pump.

40. (New) The injection apparatus of claim 38, wherein the back flow prevention device is disposed in the fluid path downstream of the first and second fluid conveyors.

41. (New) The injection apparatus of claim 38, wherein the back flow prevention device comprises a valve.

42. (New) The injection apparatus of claim 38, wherein the back flow prevention device comprises air packets introduced into the fluid path to divide the fluid into fluid packets.

43. (New) The injection apparatus of claim 38, wherein the back flow prevention device comprises:

a housing; and

a spring loaded member disposed within and adapted to mate with the housing,

wherein the spring loaded member disengages from the housing to permit the fluid to flow thereby, and

wherein the spring loaded member engages the housing to prevent fluid flow, thereby preventing back flow.

44. (New) The injection apparatus of claim 38, wherein the back flow device comprises a drip chamber.
45. (New) The injection apparatus of claim 41, wherein the valve is a rotary switch.
46. (New) The injection apparatus of claim 20, wherein the connector comprises at least an individual patient hook up.
47. (New) The injection apparatus of claim 46, wherein the individual patient hook up comprises a disposable tube.
48. (New) The injection apparatus of claim 20, further comprising at least one heater associated with the fluid path upstream of the patient.
49. (New) The injection apparatus of claim 48, wherein the at least one heater heats the first and second fluids to approximate body temperature.
50. (New) The injection apparatus of claim 48, wherein two heaters are associated with the fluid path adjacent to the first and second fluid sources.
51. (New) The injection apparatus of claim 20, further comprising an electronic control system operably associated with at least the first and second fluid conveyors.
52. (New) The injection apparatus of claim 51, wherein the electronic control system receives operator input including at least a desired fluid concentration.

53. (New) The injection apparatus of claim 51, wherein the electronic control system receives operator input including a flow rate of a fluid and a total volume of fluid to be delivered to the patient.

54. (New) The injection apparatus of claim 20, wherein the first fluid conveyor at least pressurizes the fluid conveyed thereby.

55. (New) The injection apparatus of claim 54, wherein the first fluid conveyor is a pressurizing pump.

56. (New) The injection apparatus of claim 55, wherein the pressurizing pump is a peristaltic pump.

57. (New) The injection apparatus of claim 55, wherein the pressurizing pump is a gear pump.

58. (New) An injection apparatus, comprising:

a fluid path connected to a patient, the fluid path comprising a reusable portion and a disposable portion;

a contrast fluid source connected to the fluid path upstream of the patient and operable to provide contrast fluid to the fluid path;

a second fluid source connected to the fluid path upstream of the patient and operable to provide a second fluid to the fluid path;

at least one peristaltic pump associated with the fluid path downstream of the contrast fluid source or the second fluid source to convey fluid therefrom;

a fluid assurance device disposed in the fluid path downstream of the at least one peristaltic pump; and

a connector disposed in the fluid path downstream of the fluid assurance device.

59. (New) The injection apparatus of claim 58, wherein the at least one peristaltic pump comprises two peristaltic pumps, one of the peristaltic pumps being associated with the fluid path downstream of the contrast fluid source and the other of the peristaltic pumps being associated with the fluid path downstream of the second fluid source.

60. (New) The injection apparatus of claim 58, wherein the at least one peristaltic pump is associated with the fluid path downstream of the second fluid source.

61. (New) The injection apparatus of claim 60, further comprising a second pumping device associated with the fluid path downstream of the contrast fluid source.

62. (New) The injection apparatus of claim 61, wherein the second pumping device is a peristaltic pump or a gear pump.